Psychological Outcomes and Coping Strategies:
A Longitudinal Study of Lone-parent
and Two-parent Families

NOVA SCOTIA
Community Services

The Family Mosaic

Psychological Outcomes and Coping Strategies:
A Longitudinal Study of Lone-parent
and Two-parent Families

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Introduction

Over the last generation, fertility rates have dropped below replacement level, the percentage of children born into single-parent families has increased substantially, divorce rates have multiplied ten-fold, and women's labour force participation rates have quadrupled (Dechman, 1995). The magnitude and speed of these changes have left us without a clear picture of what today's families really look like. Family life is both varied and dynamic. There are one and two-parent families; single and dual-earner families; blended, nuclear, and extended families. Families can be two-parent today and one-parent tomorrow; single-earner today and dual-earner tomorrow.

The Family Mosaic Project (FMP) provides policymakers, practitioners, and the public with information about the ever-changing realities of life in both one and two-parent families as children grow from infancy to adulthood. The project started over twenty years ago with a sample of 716 mothers who gave birth to their first child in a Nova Scotia hospital in 1978. The sample was stratified on the basis of marital status. Half of the mothers were married when their first child was born and half were single when their first child was born. By drawing two comparable samples of married and single mothers, it is possible to give statistically-reliable estimates of outcomes for both family types. Weighting the data to compensate for the over-representation of single mothers also makes it possible to provide information on families in general.

Data collections for this project were conducted when the children were approximately 6 weeks, 9 months, 18 months, 10 years, and 20 years of age. The 6-week, 9-month, and 18-month data collections consisted of personal interviews with the mothers. The 10-year data collection consisted of personal interviews with mothers and psychological assessments of a random sample of 223 of the children. The 20-year data collection consisted of telephone interviews with both the mothers and their sons or daughters who were, by then, young adults. Seventy percent (N=500) of the mothers who started the project in 1978 were still involved in the 1999 data collection. Eighty-six percent (N=428) of the sons/daughters of these mothers also participated in the 1999 data collection. More detailed information on the study design and associated questionnaires can be found in the Methodology Report (Dechman, 2001a).

This report on the psychological well being of mothers and young adults is part of a larger series of reports including:

- The Dynamics of Family Life
- Educational Profiles of Mothers
- Employment Profiles of Mothers
- Social Exclusion and Social Assistance
- Social Exclusion and the Health of Mothers and Young Adults
- The Experiences of Young Adults Leaving School Early
- Leaving School or Continuing: What Makes the Difference?
- Youth Employment: Entering the Labour Market

Policy and Research Context

Few topics have generated as much debate over the past 20 years as the psychological impact of the lone-parent household. Some have argued that lone parenting has extremely damaging effects on children that extend to, or are even magnified during, the adult years. In a 15 and then 25 year follow-up study, vocal divorce critic Judith Wallerstein found that approximately half of her sample of adult children of divorce experienced significant long-term psychological problems (including anxiety, impulsivity, and anger outbursts), underachievement in school and in the workplace, and multiple relationships and divorce upon entering adulthood (Wallerstein & Blakeslee, 1989; Wallerstein, Lewis, & Blakeslee, 2000; see also McLanahan & Sandefur, 1994, for an additional review). Others, however, have criticized Wallerstein as being overly pessimistic and dismissive of children's resilience. This camp is best characterized by the research and conclusions of E. Mavis Hetherington, who argues that, following an initial period of adaptation, 75-80% of children from divorced families go on to function well and exhibit no long-term deleterious effects (Hetherington & Kelly, 2002).

Studies have also documented that lone mothers, who constitute the vast majority of lone parents, experience a disproportionate number of psychological problems (see Mednick, 1987). Depression, anxiety, stress and strain, have been emphasized as likely correlates or outcomes of being a lone mother. On a more macro level, lower socioeconomic status, educational level, and poorer quality of work life have all been implicated with lone motherhood. Debate exists here regarding whether these studies unfairly pathologize lone mothers while detracting attention from the institutions and systems that fail to provide adequate support (Levine & Perkins, 2001). A further caveat is evidence suggesting that psychological distress in single mothers may have precipitated, rather than resulted from, early childbearing (Davies, Avison, & McAlpine, 1997).

The Risk and Resiliency Versus Family Diversity Approaches

Prevailing value systems have driven society's response to the growth of lone parent households, and academics have not been immune to various ideological biases when conducting research in this area. Given that the rise

of divorce and lone parenting by never married mothers represented a significant departure from the status quo it is not surprising that most of the early research focused on the disruptive impact of lone parenting. Much of the current research ccntinues to be based upon this *risk and resiliency* model, a framework that fits well with the traditional psychological diathesis-stress framework. Diathesis-stress is a concept based on the proposition that the amount of stress an individual can cope with before developing a psychological disorder depends upon, and interacts with, genetically determined biological risk or vulnerability (Halgin & Whitbourne, 2000).

When applied to lone parenting, the risk and resiliency model is premised on the notion that lone parenting makes mothers and children more vulnerable to the rigours of stress, while setting the stage for even more stressful events. This framework, then, emphasizes the likelihood of psychopathological outcomes, with degree of risk being mitigated by protective factors such as involvement by the extended family or contact with community organizations.

Not all adherents to the risk and resiliency model argue that lone parent led households provide an automatic recipe for psychopathology. Many recognize the necessity, or benefits, of marital breakdown in some contexts and point to the need for society to provide greater levels of support to lone parent families. However, even this more flexible viewpoint incorporates the premise that lone parenting creates stress that requires an adaptational response. The focus, therefore, typically remains on risk and resiliency factors and on the coping styles that buffer stress and moderate outcomes. Hetherington and Arasteh's (1988) edited collection of studies provides a classic example of this paradigm (see Hetherington, 1999, for a more recent example).

As lone parenting has become more normative, an increasing number of scholars have moved towards what might be called a *family diversity perspective* (e.g., Demo, Allen, & Fine, 2000). In very general terms, this perspective embodies the notion that problems existing within lone parent households are less the result of the pathological nature of this family unit and more the result of society's failure to support and accept alternative family structures. Although family diversity researchers are not oblivious to increased stress in lone parent households, they focus less on "fixing the

problem" of lone parent families and more on fixing a society that embraces a monolithic and uni-cultural view of what the family should be. These researchers also highlight those studies demonstrating positive outcomes in lone parent and alternate family models.[1]

The Research Problem

Despite the amount of public debate surrounding lone parenting, relatively little research has been conducted that accurately addresses psychological outcomes for mothers and their children. The available literature is incomplete, fraught with methodical flaws, and conceptually confounded. While this unsatisfying situation can be partially attributed to the daunting challenge of incorporating the many variables that must be taken into account, ideological obstacles have also impeded progress when scholarly argument has reflected political considerations to the detriment of sound empirical evidence. Before embarking on this report of findings of psychological outcomes for mothers and children in two-parent versus lone-parent families, it is useful to briefly review how several prominent methodological and conceptual issues in this research area were addressed in the Family Mosaic Project (FMP).

Methodological and Conceptual Challenges

▸ The Benchmark Versus Pluralistic Family Models

Establishing the criteria for an optimal family environment requires the establishment of a benchmark against which less optimal types can be compared. The existing benchmark has been of the nuclear family headed by two white, middle class, biological parents. Recently, there has been increasing concern that the use of such a benchmark is ethnocentric in excluding lone and gay parents, low socioeconomic families, and families from different racial, ethnic, and cultural backgrounds. In practice, adopting such a benchmark may be biased insofar as it shapes the research agenda in such a way to make it more likely that deficits or problems will be identified in lone parent households. At the level of social policy, such an approach implicitly encourages recommendations directed towards "fixing" deviant family models.

Increasingly, the use of this benchmark can also be criticized on statistical or normative grounds. Less than one-half of children presently growing up in the U.S. can expect to reach adulthood living in the home of their biological parents, and approximately one third of these children will be born to unmarried parents (McLanahan, 1999). Current estimates also suggest that about 50% of Canadian children can now expect to live in a lone-parent household at some point before reaching adulthood (Dechman, 2000a; Lindsay, 1992; Statistics Canada, 1997).

- **The measurement of psychological outcomes in lone parent families proceeds as if lone-parent families were homogeneous in structure, developmental genesis, and socio-cultural characteristics.**

Despite the sharp rise in families headed by never married mothers, most of our knowledge about psychological outcomes in lone parent families continues to be adopted from the divorce literature. The extrapolation of findings from families of divorce to all lone parent families is premised on the assumption that growing up in a family structured without a second parent is equivalent to the conflict, disruption, and sense of loss that children feel as the result of marital dissolution. Although studies comparing divorced to never married mothers suggest many similar outcomes, the research base is too limited to allow for reliable conclusions.

- **Most studies are cross-sectional in nature, seriously limiting any conclusions about developmental changes amongst individuals, in family structure, or in societal values.**
- **Most studies reporting outcomes in how lone-parent families fare have not utilized an appropriate control group (i.e., families with married mothers). Thus, while the literature has charted differences in never married mothers on the basis of such things as education, socioeconomic status, and ethnicity, we know little about how these variables differentially impact married versus never married mothers.**
- **A false dichotomy separates structural variables (e.g., lone parent status, low income, low education) from psychological or process**

variables (e.g., level of conflict, psychological vulnerability, presence of social support).

This false split can be accounted for in part by differences between the sociological and psychological literature. Sociologists have primarily focused on the "differential exposure" hypothesis, which holds that variation in outcomes can be accounted for by different levels of stress and strain resulting from structural (i.e., environmental) factors (see McLanahan, 1985). Psychologists, on the other hand, have embraced the risk and resiliency model, also known as the "differential vulnerability" hypothesis, while failing to fully address structural factors.

A recent study by William Avison and Jennifer Ali (Avison & Ali, in press) tested the differential vulnerability versus differential exposure hypotheses. These researchers concluded lone mothers and their children were no more susceptible to psychological problems than were controls, provided environmental and situational variables are held constant. They further suggested that psychological problems experienced by lone mothers could be accounted for by the greater stress and strain imposed by society, arguing their findings provided support for the differential exposure perspective.

These findings are helpful to the extent that they shift focus away from the "problem" of lone mothers to a broader societal context. However, the approach is impractical insofar as lone-parenting cannot be extracted from the social context within which it occurs. In a previous study, Ali and Avison (1997) made a similar argument after controlling for income on the basis that it was a "confounding" factor. Although perhaps an important theoretical point, these researchers fail to deal with the reality that lone mother led households are economically disadvantaged. In order to avoid this false dichotomy, the FMP allowed for consideration of the additive and interactive effects of psychological and structural variables in order to better understand the experiences of those living in lone parent households.

Rationale for this Report

This report reviews a selected number of psychological outcomes for mothers and their children, some 20 years after the commencement of The FMP. The approach is not premised on assumptions about the inherent superiority of

any particular type of family structure, and we note that the "traditional" nuclear family is, from an historical perspective, quite recent and culturally bound (Coontz, 2000). Therefore, whether or not one believes this benchmark to be optimal, there is little reason to believe this model is innately driven and therefore "natural."

On the other hand, recognition a ıd respect for alternate structures does not imply that we assume all family circumstances are equal in terms of desirability and outcomes (Demo, Allen, & Fine, 2000). Furthermore, the recognition of less desirable outcomes, however they may be defined or interpreted, does not necessarily indicate structural or process-oriented dysfunctional aspects of family life *per se*. Rather, one may judge that differing outcomes are based in more macro level structures and processes. Obviously, changes in "traditional" family structure and micro level family processes have taken part, and continue to occur, against the backdrop of the societal status quo (e.g., government policy, public attitudes towards lone mothers). However, although one might believe that the status quo vis-à-vis lone parenting should change, it is naive to discount the relevance of societal structures and attitudes as they currently exist. At the same time, since the traditional nuclear family as benchmark for social policy no longer serves the vast majority of households, we similarly reject a narrow focus on specific outcomes for lone mothers and their children that decontextualizes their experience. Thus, we premise our investigation by assuming that the consideration of either process or structural variables in isolation is doomed to provide an unsatisfying composite of the experience of lone mothers and their children.

Without an a priori commitment to either the risk and resiliency or family diversity perspectives, it is important to note that outcomes reported here may not easily translate into policy recommendations that flow logically, and without debate, from our findings. Additionally, although this study is broader in scope and less methodologically flawed than many of those reported in the literature, the approach remains essentially correlational in design. Thus, while we are able to quantify the nature of relationships between variables, we are not able to make definitive conclusions about cause and effect relationships.

General Methodological Approach and Organization of Report

The FMP allowed us to examine outcomes in lone parent as compared to dual parent families, thus including the control group absent in most studies to date. Due to the longitudinal aspect of the project, we were able to track developmental change in family structure and other variables of relevance.

The reader is referred to Dechman's (2001a) methodology report for details about the participant pool and the more general approach to data collection and analyses. This report, summarizing psychological outcomes, is one of a family of reports compiled at the conclusion of the FMP. Other reports focus on family dynamics (Dechman, 2000a), social exclusion (Dechman, 2001b), vocational outcomes (Dechman & Medjuck, 2001), health outcomes (McFadyen, Millar and Dechman, 2002), and educational outcomes for mothers (Dechman, 2000a) and children (Dechman, 2002). All reports are available online at the Province of Nova Scotia's Department of Community Services Home Page at http://www.gov.ns.ca/coms/files/FM.asp

We begin our analyses of psychological outcomes with the consideration of four broadly defined groups of mothers according to their status when the project commenced in 1978:

- **younger unmarried mothers**
- **older unmarried mothers**
- **younger married mothers**
- **older married mothers.**

The split for maternal age was 19 years of age or younger and over 19 years of age. We were also able to examine the marital status of the mothers at the end of the project with the goal of distinguishing those initially married mothers who remained married from those who subsequently divorced. We dropped mothers' initial age from these analyses, leaving us with the following three comparison groups:

- **initially unmarried mothers**
- **initially and continuously married mothers**
- **initially married but subsequently divorced mothers**

These analyses were conducted after weighting data to compensate for sample to population biases that would occur from over-sampling of lone mothers that occurred when this project commenced (see methodology report, Dechman, 2001a, for rationale and weighting factors).

This report is concerned primarily with psychological outcomes and the variables that predict those outcomes. Therefore, the central focus is upon what was referred to above as "process" variables. However, "psychological" variables is a more precise term as we cannot know whether the constructs we measured precipitated, were consequent to, or interacted with family-related life circumstances. We also examined these psychological variables in relation to a limited number of "structural" variables such as level of education, socioeconomic status, and so on. In this way we have attempted to avoid the false dichotomy of process versus structure, to provide a more contextualized view of the experiences of the mothers and children in this study.

The organization of the report will be structured around two major themes:

1) Psychological outcomes for children and mothers are examined independently. Differences in self-esteem, locus of control, quality of life, coping strategies, and, in the case of the young adults, personality styles, are examined on the basis of marital status and maternal age when giving birth.

2) Selected variables measured at earlier stages of the FMP are used to predict psychological outcomes for mothers and young adults.

Psychological Characteristics under Investigation

- **Self-Esteem**

Self-esteem has entered into the North American psyche to a degree unmatched by any other psychological concept. In simplest terms, self-esteem refers to the evaluation of one's self-worth (Baumeister, 1993). Self-esteem is typically viewed as being particularly vulnerable to psychological

insult, and it has become popular to blame low self-esteem for a variety of society's ills.

However, scholars have become increasingly critical about the ambiguous meaning and overuse of the self-esteem construct (Stout, 2000). It is often argued that self-esteem means different things to different people, and that measures of self-esteem do not correlate well with characteristics supposed to accompany this construct. For example, many people who lead successful and productive lives report low levels of self-esteem while others struggling in a variety of life domains often report high self-esteem (Sommers, 1994). There is also discussion that self-esteem, at least within a typical range of life experiences, is neither particularly vulnerable nor likely to be buoyed by external circumstances. This may be attributable to the fact that self-esteem is more akin to personality traits than to the highly malleable characteristic conceptualized in common discourse.

Nonetheless, given our current focus on self-esteem and the negative experiences often associated with lone parenting, we would be remiss to discount the role of this construct as either an outcome or a predictor variable in this study. For example, low self-esteem has often been associated with teenage pregnancy and as one of the outcomes of growing up without a second parent. In this study we opted to use the best known and historically important of all of the general self-esteem scales. The Rosenhan (1965) Self-Esteem Scale is comprised of 10-items that query generic feelings of self-worth (e.g., " I feel that I am a person of worth, at least on an equal basis with others"), has been used widely since its development, and possesses adequate to strong psychometric properties.

- **Locus of Control**

Making decisions about why we experience life's events and circumstances is probably the most frequent psychological judgment we make. When we judge an event to have occurred because of choices under our personal control, we have made an internal attribution. Conversely, when we judge events as being outside of our control and imposed upon us by outside forces, we have made an external attribution.

Of course, we are correct to variously attribute some outcomes to our skills, behaviours, and judgments, and others to circumstances outside of our control. However, individuals vary on a continuum known as locus of control, which biases us towards making all of our attributions as either internal or external. Such a bias, in either direction, typically leads us to make many attributional errors. Those of us who tend to see most of life's circumstances as being under our control are said to have an internal locus of control while those of us who tend to feel that our lives are the results of decisions of others or external forces are described as having an external locus of control.

Although there are occasions when it is healthy to attribute outcomes to external factors (regardless of accuracy), the psychological literature more generally points towards the advantages of an internal locus of control. An internal locus of control is especially useful when considering one's successes, but is also generally helpful when facing failure. It leads to a sense of being in charge of one's life and underscores the development of self-efficacy (i.e., the perception that one can tackle and master challenges). An internal locus of control has been associated with positive psychological states and positive academic outcomes (Wiest, Wong, & Kreil, 1998).

Most of the psychological literature on lone parenting implies that both mothers and children in these families experience events over which they have had little input. Whether it be living in poverty, succeeding in school or in the workplace, obtaining affordable quality daycare, or encountering any of many other stressors, the literature underscores situations marked by a lack of control. Locus of control, therefore, seemed an especially important construct to measure in this study, holding clear implications for social policy. When individuals encounter a history of events that are truly outside of their control, they are likely to learn that all future events will also be outside of their control. This learned helplessness (Seligman, 1975) has been implicated in the higher rates of depression seen in women as compared to men and, more specifically, as an important contributor to the development of the battered woman syndrome (Walker, 1984). Those lone parents and their children who have experienced little or no control over life circumstances may fail to exploit opportunity even when actual options to "take control" are seemingly presented. For example, public discussion about welfare policy is often characterized by rhetoric about dependency on government support, or lack of motivation, countered by opposing rhetoric about victim blaming. This

rancorous debate often centers on what represents an actual or "real" option, and the locus of control phenomenon is typically excluded from discussion. This is a significant omission because to the individual with an external locus of control, "real" opportunities may be perceived to be every bit as unattainable as those options that are truly beyond reach.

An external locus of control has been implicated in a variety of phenomena germane to this study. For example, theorists have argued that teenage pregnancy is often the result of girls attempting to gain control over at least one aspect of their lives, namely giving birth to and raising a baby. When discussed in the popular media and by laypersons, this locus of control explanation of teenage pregnancy is often mistakenly included under the rubric of low self-esteem. A teenage girl who possesses an internal locus of control and faces life with adequate levels of self-efficacy, is much more likely to be able to choose when she will be sexually active, with whom she will be sexually active, and when she will exercise reproductive options. Therefore, it is surprising that virtually no studies address locus of control specifically in the lone parenting literature. We opted for Rotter's (1966) 8-item Locus of Control Scale, a commonly utilized generic measure of the construct, to address this omission.

- **Affective Well-Being/Quality of Life/Life Satisfaction**

Studies of lone parenting have examined psychological outcomes, often by measuring one, two, or three constructs at a time (e.g., anxiety, depression). For example, Hall, Gurley, Sachs, and Kryscio (1991) found that almost 60% of their sample of low-income lone mothers had high levels of depression. Due to the broad scope of this study, we opted not to use specific measures of distress, both because they are relatively intrusive and because to do so would have made the questionnaire unwieldy in length.

Instead, we opted for an instrument that can variously be referred to as a measure of affective or psychological well-being, quality of life, or life satisfaction, a construct worthy of investigation in its own right and one that can serve as an imperfect proxy for the variety of constructs related to emotional state. We utilized the Index of Well-Being (Campbell, Converse, & Rodgers, 1976) for this purpose. The first part of this questionnaire contains

eight items assessing general affect (e.g., rating how "full" versus "empty" one perceives one's life to be) followed by a lone item, with a slightly higher statistical weighting, measuring one's subjective degree of satisfaction with life.

Cohen (1996) focused on sense of well-being in her comparative study of lone versus two-parent families in Israel, with lone parents including both men and women who had divorced. Her findings revealed an interesting interaction, where lone parents in good economic situations reported higher well-being than controls but parents in poor economic circumstances fared worse in well-being relative to dual-parent families. She also discovered that a problem-focused coping style was associated with higher levels of well-being than an emotion-focused approach. The importance of considering the nature of coping styles is discussed below.

- **Coping**

Unlike locus of control, a substantial amount of the lone parenting literature has been devoted to understanding how lone parents cope. Many empirical reports and, indeed, entire books have been written on the topic (e.g., Hetherington, 1999). As indicated earlier, this research is very much rooted in the psychological tradition, being based on the notion that the lone parent family situation is a stressful one that requires coping. Even here, however, much of the research encompasses coping as a vaguely defined process, and very few studies have actually employed standardized measures.
Any response to a life stressor can be considered a coping response and, at some level, adaptive. However, some coping strategies are not adaptive on a long term basis, such as "drowning one's sorrows" by consuming alcohol. It is not so clear-cut as to whether all coping strategies are always either healthy or unhealthy strategies for long-term adaptation. For example, although conventional wisdom generally holds that it is best to tackle problems "head on," there are numerous circumstances where one copes best by actively reframing the problem either cognitively or emotionally. For example, emotion-focused, as opposed to problem-focused, coping was associated with lower levels of anxiety and depression in one study of divorced mothers (Propst, Pardington, Ostrom, & Watkins, 1986). The authors attributed the finding to the futility of problem-focused coping where situations cannot be changed.

There are even circumstances where "walking away" from problems, whether through behavioural, cognitive, or emotional strategies, may make sense given the situation, especially in those situations where more active strategies are simply not available. Nonetheless, avoidance coping strategies have generally been associated with poorer outcomes. For example, Moos (1993) reviews a number of studies where avoidance strategies have been linked to problem drinking, depression, troubled family environments, absence of social support, and low socioeconomic status. More specific to the current investigation was a study linking avoidance coping strategies in low-income lone mothers to high levels of depression and low levels of social support (Hall et. al, 1991).

Given that these are correlational findings, it is difficult to determine the extent to which poor coping led to negative outcomes as opposed to poor coping strategies being the result of facing unremitting stressors (indeed, it seems likely that causal links exist in both directions and that coping strategies and stressors interact). For the purposes of this study, it is interesting to note that women tend to use more avoidance strategies than do men, though Moos (1993) attributes such coping in men to be indicative of poor psychological functioning while in women it is more likely the result of situational factors. When applied to the case of lone mothers, this assertion is consistent with the differential exposure hypothesis.

Although the foregoing discussion sets the choice of coping within a situational context, it is important to remember that individuals in similar or identical circumstances vary in their choice of coping strategies. Therefore, we proceeded on in our investigation of coping strategies with a central premise qualified by a very significant caveat. Specifically, we attempted to ascertain which factors led to different types of coping strategies in lone versus married mothers and their children, open to the possibility that those avoidance strategies were more likely than approach strategies to be associated with negative outcomes (Moos, 1993). This central premise was qualified, however, by recognition that avoidance coping might be situationally determined in the case of lone mothers and their children, and not necessarily indicative of a dysfunctional psychological style *per se*.

We chose to utilize the well-known Coping Responses Inventory (Moos, 1993) in this study. This instrument first elicits from participants the most stressful event that has transpired over the past year and then requires participants to respond to 48 items assessing how they actually coped. These 48 items are compiled into eight composite scales that measure different coping strategies, evenly divided into "approach" strategies, quite similar to the problem solving strategies assessed by other coping indices, and "avoidance" strategies. Furthermore, both approach and avoidance strategies are further subdivided into cognitive and behavioural coping styles. The eight scales and accompanying rationales, adapted from Moos (1993), follow:

Approach Responses

1 **Logical Analysis (Cognitive)-** the person tries to think through ways to understand and prepare for a stressor
2 **Positive Reappraisal (Cognitive)-** the individual mentally reformulates the situation to find positive aspects without denying the reality of the situation. In more colloquial parlance, it is the "making the best out of a bad situation" strategy
3 **Seeking Guidance and Support (Behavioural)-** the individual seeks information, guidance, and assistance from others
4 **Problem Solving (Behavioural)-** dealing directly with the problem

Avoidance Responses

1 **Cognitive Avoidance (Cognitive)-** thinking unrealistically about the problem
2 **Acceptance or Resignation (Cognitive)-** passive acceptance
3 **Seeking Alternative Rewards (Behavioural)-** becoming involved in other activities or seeking other routes to satisfaction without dealing with the problem
4 **Emotional Discharge (Behavioural)-** reducing tension by expressing negative feelings

The approach utilized with the Coping Responses Inventory is accompanied by some risk of eliciting a coping style that is incident specific. However, it is generally thought that coping strategies are relatively stable across situations,

and the recollection of a specific event simply helps respondents focus on an actual incident, thus increasing validity. Additionally, the inclusion of a recent stressful life event allows us to gauge the stressor encountered, and whether or not there are between-group differences in the stress these mothers and children face. The actual severity of the stressor can be statistically controlled for when comparing scores across the actual coping domains, therefore ensuring that the stressor severity has not been confounded with coping scores. Finally, the Coping Responses Inventory is a standardized and frequently used instrument, possessing adequate to strong psychometric properties (Moos, 1993).

- **Personality Functioning**

Personality functioning can be seen both as a predictor of psychological, social, occupational, and general life outcomes, and as being shaped by life's experiences. Current estimates suggest that as much of 50% in personality variation can be accounted for by genetic makeup. The remainder is shaped by environment, with early life experiences being especially important. Although there is no consensus about the age at which a child's personality is fully developed, most would agree that our character, at least in fundamental ways, is fixed by the time we reach 20 years of age.[2] Therefore, the age at which the youth in this study were surveyed would represent the approximate developmental stage when the formative years in personality development would be complete.

We decided to assess personality functioning as part of the cluster of psychological characteristics in the young adults but not their mothers. Rather than using a "clinical" measure of personality to detect psychological disorders in these young adults, we opted for a measure of "normal" personality functioning. We chose an abbreviated measure of the Revised NEO Personality Inventory known as the NEO Five-Factor Inventory (Costa & McRae, 1992). This briefer version of the widely used NEO Personality Inventory provides measures of the "big five" personality constructs, the most widely accepted model of personality presently in use.

1. **Neuroticism** – Individuals scoring high on this dimension are seen as susceptible to psychological distress and as less able to adapt and cope

2. **Extraversion-** Associated with sociability, assertiveness, and high levels of activity
3. **Openness to Experience-** High scores here suggest an openness to new experiences, autonomy in forming judgments, and intellectual curiosity
4. **Agreeableness-** High scores on this dimension have been associated with altruism and reduced levels of egocentrism
5. **Conscientiousness-** Individuals scoring towards the upper end of this personality scale are often good at controlling impulses, high in systematic achievement orientation, and reliable

Empirical findings tend to support the intuitively appealing notion that optimal personality is associated with low scores on neuroticism and higher scores on the other four constructs. However, this is an overly simplistic generalization, and conclusions about optimal functioning are more appropriately viewed in terms of the degree to which individuals fit these five types, the interaction between the qualities in any individual, and the context in which the qualities manifest. For example, high scores on Conscientiousness might reflect "workaholic" tendencies in some, while high Agreeableness might be associated with an inability to "stand up" for oneself or to fulfill certain job-related tasks that require assertiveness. Furthermore, as this is not a measure of abnormal personality functioning, it is important to note that a high score on Neuroticism is not necessarily indicative of any sort of psychopathology. It is advisable to view these personality scores in the same way as the previously described coping tendencies; although certain coping strategies or personality types may be generally advantageous, any conclusions are accompanied by caveats and by the need to incorporate context.

Specific Methodological Approach

In the analysis of outcomes reviewed throughout the remainder of this report, we adopt a variety of statistical approaches and strategies in order to glean more precise conclusions about the associations between variables. We do, however, rely quite heavily on three primary approaches in order to pursue questions of interest.

- Our first methodological approach groups mothers and their children on the basis of mothers' initial marital status and age when their first child was born. The groups of interest were demarcated on the basis of being married or unmarried and by being either 19 years or younger as compared to being more than 19 years of age when giving birth. For many of these analyses, a 2 (married or not married) X 2 (younger and older mothers) factorial design, utilizing an analysis of variance (ANOVA), is used. This approach not only allows us to look for main effects of age or marital status, but also to probe for differences between any or all of the four groups (young, unmarried; older, unmarried; young, married; older, married) by means of interaction effects.
- The second main analysis strategy subdivided participants into three groups: mothers who were initially unmarried, mothers who were continuously married, and mothers who were initially married but subsequently divorced. A one-way (three level) ANOVA followed by post hoc tests was the primary technique used here. When assessing outcomes for the young adults, sex was added as an additional variable to the above approaches to assess potential gender [3] effects.
- Finally, we used multiple regression analyses to examine links between variables measured earlier in the FMP and current psychological outcomes and coping styles for all mothers and young adults irrespective of family configuration.

Mothers' Outcomes

1. Initial Marital Status and Age

Mothers' Self-Esteem, Locus of Control, and Sense of Well-Being

Mothers of both age groups who were married at the time they gave birth reported significantly higher levels of self-esteem 20 years later (M=33.51, SD= 4.41) than did those who were initially unmarried [M = 31.92, SD = 5.08; F (1, 343) = 4.16, p < .05]. Older mothers also reported somewhat higher

levels of self-esteem than did the younger group, although this tendency failed to reach statistical significance.

For locus of control, a two-way interaction emerged [F (1, 344) = 4.15, p < .05]. Average scores for the younger married, younger unmarried, and older unmarried mothers were all similar (Ms 50.63, 51.14, and 50.22, respectively), with the interaction arising from the significantly higher (p < .01) scores reported by the older, initially married mothers (M = 53.31, SD = 6.73). Thus, while initially married mothers as a whole reported higher self-esteem, it was only the older married mothers who stood out in terms of enhanced levels of internalized control.

No statistically significant differences emerged on the affective well being/quality of life variable. However, there was a nonsignificant trend for married mothers to report a higher sense of well-being (M = 49.24) than unmarried mothers (M = 46.42; p = .07). This trend should be viewed with caution and interpreted only within the context of other findings.

- **Mothers' Coping Strategies**

Average scores for the four groups on the eight coping strategies can be located in Table 1. There were no significant differences in the likelihood to use problem-solving strategies, but differences (or near differences) did emerge on the other three "approach" strategies. Initially married mothers (both younger and older) reported being more likely to use Logical Analysis as a coping strategy (M = 11.95) than did the initially unmarried mothers [M = 10.72; F (1, 256) = 6.65, p < .01]. Younger mothers (regardless of marital status) tended to rely more upon Positive Reappraisal (M = 11.92) than did older mothers (M = 10.96), though this difference fell just short of statistical significance [F = (1, 263) = 3.45, p = .06]. Finally, an interaction emerged on the Seeking Guidance and Support scale [F (1, 261) = 3.90, p < .05], such that older married mothers were more inclined to use this strategy than their younger married counterparts, with this age pattern reversed with unmarried mothers. However, this interaction was relatively weak and the four average scores failed to differ significantly in any combination of pair-wise comparisons.

No marital status effects emerged on any of the avoidance coping scales, though age effects did emerge for two of these four strategies. Younger mothers (M= 8.07) were more likely than their older counterparts (M= 6.26) to employ Cognitive Avoidance as a strategy [F (1, 258) = 5.11, p < .05] and also more likely than older mothers to use Emotional Discharge to deal with stress [Ms = 7.28 and 5.81; F (1, 259) = 8.41, p < .01].

Table 1. Mothers' Coping Scores (1978 Status Groupings)

Coping Styles	Unmarried 19 or Under (n=47)	Unmarried Over 19 (n=24)	Married 19 or Under (n=56)	Married Over 19 (n=137)
Cognitive Approach				
Logical Analysis	11.45 (3.22)	10.00 (3.32)	12.00 (3.11)	11.90 (3.17)
Positive Reappraisal	12.00 (3.63)	10.48 (3.65)	11.84 (3.34)	11.43 (3.52)
Behavioural Approach				
Seeking Guidance & Support	11.38 (3.79)	10.07 (2.95)	10.74 (3.29)	11.38 (3.25)
Problem Solving	13.12 (2.76)	12.11 (3.44)	12.14 (3.53)	12.76 (3.56)
Cognitive Avoidance				
Cognitive Avoidance	7.69 (4.09)	6.33 (3.80)	8.45 (3.72)	7.24 (3.75)
Acceptance or Resignation	8.07 (4.19)	7.83 (3.25)	8.45 (3.97)	7.67 (3.90)
Behavioural Avoidance				
Seeking Alternative Rewards	7.90 (4.30)	7.83 (3.25)	8.45 (3.97)	7.67 (3.90)
Emotional Discharge	7.66 (3.50)	5.34 (3.16)	6.90 (3.29)	6.27 (3.45)

Note: Average scores with standard deviations within parentheses.

2. Initially Unmarried, Continuously Married, and Divorced Mothers

The foregoing analyses were repeated to assess differences between initially unmarried, continuously married, and divorced mothers.

▸ Mothers' Self-Esteem, Locus of Control, and Sense of Well-Being

Average scores for self-esteem, locus of control, and affective well-being are reported in Table 2. As can be seen, continuously married and divorced mothers reported nearly identical levels of self-esteem. Initially unmarried mothers, however, reported a significantly lower level of self-esteem. Thus, the higher levels of self esteem reported by married mothers in the previous analyses appears isolated to initial marital status and were not qualified by later divorce.

Table 2. Mothers' Psychological Variables (Longitudinal Groupings)

Psychological Characteristics	Initially Unmarried (n=102)	Continuously Married (n=307)	Divorced (n=131)	F	Probability Of F
Self Esteem	31.92 [a] (5.08)	33.52 [b] (4.25)	33.72 [b] (4.80)	5.61	< .01
Locus of Control	50.84 [a] (7.01)	52.91 [b] (6.84)	52.64 [a, b] (7.17)	3.43	< .05
Affective Well Being/ Quality of Life	46.42 [a] (10.79)	50.02 [b] (9.17)	48.29 [a, b] (8.84)	5.34	< .01

Note: Average scores with standard deviations within parentheses. Scores not sharing the same superscript are different at the .05 level of significance (Scheffe post hoc tests).

A similar, but weaker, pattern emerged with locus of control scores. Again, continuously married mothers did not differ from divorced mothers. Initially married mothers did, however, report a significantly higher internal locus of control than did unmarried mothers (the difference between divorced and initially unmarried mothers just failed to reach significance).

A final similar, but further qualified, pattern emerged on the affective well-being/quality of life measure. Here, the three average scores more evenly rank ordered, with continuously married mothers scoring the highest and initially unmarried mothers the lowest. However, post hoc tests again revealed that it was only the continuously married and initially unmarried mothers who differed at a level of statistical significance.

▸ Mothers' Coping Strategies

The average coping scores for the unmarried, continuously married, and divorced mothers are reported in Table 2. Of the four approach strategies, significant effects emerged on the Logical Analysis and Problem Solving scales. Divorced mothers were significantly more likely than initially unmarried mothers to utilize logical analysis and significantly more likely than continuously married mothers to actively problem solve in response to stressful situations. With one exception, no differences emerged across these three groupings on any of the avoidance coping strategies. The sole exception showed divorced mothers to be significantly more likely to use Cognitive Avoidance than the other two groups.

Table 3. Mothers' Coping Scores (Longitudinal Groupings)

Coping Styles	Initially Unmarried	Continuously Married	Divorced	F	Probability
Cognitive Approach					
Logical Analysis	10.95 [a] (3.30)	11.66 [a,b] (3.16)	12.26 [b] (3.23)	3.67	< .05
Positive Reappraisal	11.49 [a] (3.68)	11.34 [a] (3.47)	11.74 [a] (3.52)	.51	Not Significant
Behavioural Approach					
Seeking Guidance & Support	10.94 [a] (3.56)	10.99 [a] (3.17)	11.83 [a] (3.53)	2.68	Not Significant
Problem Solving	12.78 [a,b] (3.02)	12.11 [a] (3.60)	13.58 [b] (3.32)	6.80	< .001
Cognitive Avoidance					
Cognitive Avoidance	7.23 [a] (4.02)	7.01 [a] (3.59)	8.72 [b] (4.01)	7.87	< .001
Acceptance or Resignation	7.99 [a] (3.87)	7.60 [a] (3.91)	8.32 [a] (3.78)	1.37	Not Significant
Behavioural Avoidance					
Seeking Alternative Rewards	5.91 (3.72)	6.88 (4.20)	7.26 (3.79)	2.46	Not Significant
Emotional Discharge	6.86 (3.54)	6.14 (3.38)	6.96 (3.41)	2.71	Not Significant

Note: Average scores followed by standard deviations within parentheses. Scores not sharing the same superscript are different at the .05 level of significance (Scheffe post hoc tests).

Point Summary of Mothers' Psychological Outcomes

Central Point

None of the discrepancies were particularly striking.

Specific Points

- Initially married mothers, regardless of age, reported higher levels of self-esteem than did initially unmarried mothers. This higher self-esteem did not differ for those initially married mothers who subsequently divorced.

- Initially married mothers over 19 years of age reported a greater internal locus of control than 1) their younger married counterparts, and 2) all of the initially unmarried mothers. Follow-up analyses showed the continuously married mothers to have more internalized control than initially unmarried mothers (scores for divorced mothers fell halfway between these two groups).

- Continuously married mothers reported significantly higher levels of affective well-being than did initially unmarried mothers (scores for divorced mothers fell half-way between).

- Initially married mothers were more likely than unmarried mothers to use Logical Analysis as a coping strategy when facing problems. Follow-up analyses suggested that most of this difference could be attributed to the coping style of initially married mothers who subsequently divorced.

- Older married mothers were more likely than their younger counterparts to Seek Guidance and Support when facing problems. This pattern reversed with the initially unmarried mothers where it was the younger group who were more likely to use this coping strategy.

- Younger mothers were more likely than older mothers to employ Cognitive Avoidance and Emotional Discharge as coping strategies.

- Divorced mothers were more likely than those who were initially unmarried and continuously married to use Logical Analysis, Problem Solving, and Cognitive Avoidance strategies.

Narrative Summary and Implications of Mothers' Psychological Outcomes

Low self-esteem has often been associated with both mothers and children in lone-parent households, whether as a causal agent precipitating early childbearing or as a consequence of the stress and strain of leading or living in a lone-parent family. However, as a subjective measure of one's self-worth, self-esteem is an often vaguely defined and casually invoked notion. While self-esteem may relate to a variety of psychological and emotional experiences, it is not clear how it might relate to various life outcomes such as educational and vocational attainment. For this reason 'ocus of control was also measured, as it may be more susceptible to life stress and more predictive of life choices and outcomes than is self-esteem.

Ratings provided by the mothers in this study supported the decision to measure both constructs. Although scores on the two scales were correlated [r (366) = .55, p< .01], outcomes differed across the variables of interest. Self-esteem differed on the basis of initial marital status and was not qualified by the age of the mother. That is, all initially married mothers reported higher levels of self-worth than did all single mothers. Furthermore, these higher feelings of self-worth remained intact for the initially married mothers even if they subsequently divorced. Taken together, these results suggest that feelings of self-worth differed between initially married and unmarried mothers prior to the birth of their first child and were not easily affected by marital status *per se* (at least insofar as can be gauged by the resilience of the mothers who lived through the stress of family dissolution).

A somewhat different picture emerged with locus of control. Here, it was only the initially married mothers over 19 years of age who stood out. Thus, while all of the married mothers rated their self-worth as greater than single

mothers, it was only the older mothers who reported feeling more in control of their lives 20 years later. This is an important distinction as it may be that delaying the decision to have a child may be associated with feeling more sense of control even over the long term.

A greater tendency to use avoidance coping strategies on the part of the unmarried mothers was not observed in this sample. Rather, relative youth was the factor associated with a greater inclination towards "avoiding" problems. Mothers 19 years of age and younger were more likely than the older mothers, independent of marital status, to use Cognitive Avoidance and Emotional Discharge to deal with problems.

The only other finding on the avoidance scales was a greater tendency for divorced mothers to utilize Cognitive Avoidance than both the continuously and initially unmarried groups. The finding was interestingly juxtaposed against the greater tendency for divorced mothers to employ active Problem Solving and Logical Analysis when facing problems. A simultaneous tendency for divorced mothers to use more logical analysis (a cognitive approach strategy) and more Cognitive Avoidance seems particularly paradoxical. A speculative interpretation for this outcome may be anchored in earlier discussion for women to use avoidance coping in a relatively more healthy way than men when the situation provides no other options. In other words, the divorced mothers may be more willing to tackle problems head on (either behaviourally or cognitively) when such strategies are practical or realistic. When approach coping is not practical or realistic, the divorced mothers may choose to "put the problem out of their heads."

In any case, these analyses are striking because they show that, after setting age aside, divorced mothers account for all differences in coping styles. Given the correlational nature of this finding, any cause and effect relationships about whether these differences reflect a life-long style or the result of life circumstances post-marriage remain speculative but intriguing. On the one hand, a predisposition for these coping strategies may have provided at least some of the divorced mothers the means by which to contemplate making an exit from marriages they perceived to be unviable. Conversely, the fact that they exited from their initial marriage may have set into action life circumstances that required them to become more active "copers" (even extending to an avoidance strategy) than the other two groups of mothers.

Young Adults' Outcomes

1. Initial Marital Status and Age

- **Young Adult's Self-Esteem, Locus of Control, and Sense of Well-Being**

No differences in mothers' initial age or young adults' gender were observed on measures of self-esteem, locus of control, or sense of well-being. That is, levels of these psychological qualities reported by the young adults did not vary on the basis of gender or on how old their mothers were at their time of birth. Furthermore, initial marital status was not related to sense of well-being/life satisfaction as reported by these young people some 20 years after their birth.

However, reported levels of self-esteem [$F = (1, 260) = 4.14$, $p < .05$] and perceived internal control [$F = (1, 261) = 7.38$, $p <. 01$] did differ between those young adults born to married as opposed to unmarried mothers. Young adults born to initially married mothers reported significantly higher Self-Esteem ($M = 32.08$) and Internal Locus of Control ($M = 52.79$) than did those born to unmarried mothers ($Ms = 30.63$ and 50.35 respectively).

- **Young Adults' Coping Strategies**

An analysis of the various coping strategies revealed a three-way Marital Status X Age X Gender interaction on the Logical Analysis scale [F (1, 193) = 3. 98, $p < .05$]. This interaction was only marginally significant and not amenable to easily meaningful interpretation. Furthermore, no lower order effects approached significance, leading to a decision not to place any emphasis on this specific outcome.[4] The only other effects to emerge on the approach scales were main effects of initial marital status [F (1, 196) = 6.67, $p < .01$] and Gender [F (1, 196) = 28.61, $p < .001$] on the Seeking Guidance and Support scale. Children born to initially unmarried mothers were less likely to Seek Guidance and Support ($M = 7.23$) than were those born to married mothers ($M = 8.74$), and males ($M = 6.43$) much more unlikely than females ($M = 9.54$).

Only Gender effects emerged on the avoidance scales, where females scored significantly higher than males on the Cognitive Avoidance, Acceptance or Resignation, and Emotional Discharge scales. As this general trend is also seen in the normative group, and since none of these differences were qualified by marital status or age, these findings are of little, or no, relevance with respect to differences in family structure.

- **Young Adults' Personality Styles**

Relatively few effects emerged on the personality scales and, of those that did, most were not particularly striking. Effects of Gender, unqualified by marital status or mothers' age, appeared on two of the five scales. These were again generally consistent with the normative data and are not discussed further. On the Agreeableness scale, young adults born to married mothers scored higher (M = 31.81) than those born to unmarried mothers (M = 29.75). However, this finding was only at a borderline level of statistical significance [F (1, 218) = 3.74, p = .055], was marginal in terms of practical effect size (eta = .017), and scores were well within normal limits relative to the average score for the standardization sample.

The remaining two significant outcomes were interactions. On the Conscientiousness scale, a Mothers' Age by Gender effect emerged [F (1, 218) = 4.99, p < .05], demonstrating that males born to younger mothers scored higher in Conscientiousness (M = 32.34) than those born to older mothers (M = 28.19). The relationship was reversed in the case of females where young women born to older mothers scored higher (Ms = 32.84 versus 31.77).

The last effect was a Marital Status by Mothers' Age interaction on the Extraversion scale [F (1, 218) = 4.36, p < .05]. When restricted to the younger mothers, those young adults born to unmarried mothers endorsed items suggesting they were slightly more extraverted (M = 30.42) than those born to married mothers (M = 28.45). This pattern was reversed when restricted to the older mothers; in this case it was the young adults born to the married mothers who were somewhat more extraverted (Ms = 29.68 and 26.88).

2. Young Adults and Initially Unmarried, Continuously Married, and Divorced Mothers

As was the case with the mothers, differences between young adults' scores were analyzed on the basis of whether their mothers were initially unmarried, initially and continuously married, or initially married but subsequently divorced. Any effects to emerge from these analyses will be referred to in the following discussion as an effect of Group. The following analyses also incorporated the sex of the young adult in the analysis. Thus, a series of Gender by Group ANOVAs were conducted, with main effects of Group and Group by Gender interactions being of interest. As was the case above, unqualified Gender effects are not of interest in this report and were, in most cases, consistent with differences within the standardization sample.

- **Young Adults' Self-Esteem, Locus of Control, and Sense of Well-Being**

A main effect for Group emerged on the self-esteem variable, such that children of continuously married mothers scored highest (M = 32.92), followed by children of divorced mothers (M = 31.64), and children of initially unmarried mothers [M = 30.45; F (2, 815) = 10.55, $p < .001$]. Post hoc Scheffes demonstrated that the sole significant difference here was between children born to initially unmarried mothers and those born to continuously married mothers.

A significant Group by Gender interaction emerged on the locus of control scale F (2, 816) = 5.32, $p < .01$. Young adults born to continuously married mothers reported the greatest degree of internal control, with the scores of the young men (M = 53.89) and young women (M = 53.84) in this group being nearly identical. Children born to initially unmarried mothers scored lowest in internal control, with very little difference observed between the average score of the women (M = 49.81) and men (M = 51.36). The interaction arose because of the striking discrepancy between the daughters and the sons of the divorced mothers. Whereas the daughters of divorced mothers scored quite high in locus of control (M = 53.01), males scored very low (M = 50.14; at about the same level as the children of never married mothers).

A significant Group by Gender interaction also emerged on the affective well-being/quality of life composite [F (2, 804) = 3.25, p < .05.] This analysis showed that five of the six groups under consideration varied only minimally in their average scores (Ms range from 46.41 to 47.64). The interaction was the result of the sharply higher sense of well being reported by females born to continuously married mothers (M = 51.68).

- **Young Adults' Coping**

An interaction emerged on the Logical Analysis scale [F (2, 640) = 5.22, p < .01] such that males born to continuously married mothers were significantly less likely to logically analyze a problem (M = 9.71) than were any of the remaining groupings (Ms ranging from 11.07 to 11.66). A similar pattern emerged on the Positive Reappraisal scale such that young men born to continuously married mothers scored the lowest of all groups (M = 8.82) while their female counterparts scored the highest (M = 10.94). On the most direct of approach strategies, it was the daughters of divorced mothers (M = 9.61) and the sons of continuously married mothers (M = 9.13) who were least likely to respond to stress by active Problem Solving (remaining Ms ranging from 10.78 to 11.18; F [2, 640] = 5.22, p < .01).

Finally, a very interesting and complicated interaction emerged on the Seeking Guidance and Support scale [F (2, 643) = 6.02, p < .01]. Although the finding that all females were more likely (M = 9.03) than all males (M = 7.76) to use this strategy was not surprising, within sex differences across groups were interesting. The female-male gap was much more pronounced with the children of continuously married mothers (Ms = 10.73 versus 7.29) and children of initially unmarried mothers (Ms= 9.14 versus 5.43) than for children of divorced mothers. Particularly striking here was how unlikely sons born to initially unmarried mothers were to Seek Guidance and Support when facing stress relative to the average score for young men in the normative group (M = 5.43 versus 8.84 for the standardization sample).

The only difference to emerge on the avoidance strategies was that children of divorced mothers (M = 5.70) were significantly less likely than those born to initially unmarried (M = 6.85) and continuously married (M = 7.28) mothers

to cope by Seeking Alternative Rewards, regardless of Gender (F [2, 598] = 8.30, $p < .001$).

- **Young Adults' Personality Styles**

No effects appeared on the Extraversion scale after the initial age of the mother was no longer of interest. As expected, young women (M = 33.07) reported significantly more Conscientiousness than did the young men (M = 29.66; F = 13.07, $p < .001$). Another expected Gender difference appeared on the Agreeableness scale where young women scored significantly higher than young men across all three groups. However, this finding was qualified by an interesting interaction showing that the young women born to continuously married mothers were especially agreeable (M = 34.76).

As expected, young women (M = 22.59) scored significantly higher on the Neuroticism scale than did young men [M = 20.98; F (1, 727) = 6.55, $p < .01$). More notable was a significant difference across the three martial groups where children of continuously married mothers scored lowest (M = 21.24), children of initially unmarried mothers the highest (M = 24.77), and children of divorced mothers falling half-way between in level of reported neuroticism (M = 23.58; F (2, 727) = 6.55, $p < .01$). Finally, a significant difference emerged on the Openness to Experience scale with children of divorced mothers scoring higher (M = 29.91) than children of continuously (M = 27.92) and initially unmarried (M = 27.37) mothers [F (2, 727) = 6.75, $p < .001$].

Point Summary of Young Adults' Psychological Outcomes

Central Points

1. Gender differences, when not qualified by mothers' initial age or marital status, were generally consistent with those seen in the standardization samples.

2. Most of the significant discrepancies were not particularly striking.

3. Although marital status and mothers' initial age were associated with a variety of young adult outcomes, these outcomes typically did not closely mirror those of their mothers.

Young Adults' Self-Esteem, Locus of Control, and Sense of Well-Being

- Young adults born to initially married mothers reported higher self-esteem and internal locus of control than did young adults born to initially unmarried mothers.

- Scores of psychological well-being did not vary across groups. The sole exception revealed that young women born to continuously married mothers reported a greater sense of well-being than did any other group.

Young Adults' Coping

- Young men born to continuously married mothers were less likely than others to use Logical Analysis, Positive Reappraisal, and Problem Solving approach strategies.

- Young men born to initially unmarried mothers were very unlikely to Seek Guidance and Support relative to other groups as well as to the standardization sample.

Young Adults' Personality

- Young women born to older mothers reported being more Conscientious than those born to younger mothers. This pattern was reversed for young men, such that it was men born to younger mothers who reported a more Conscientious personality style.

- Young adults born to initially unmarried mothers reported greater levels of Neuroticism than did those born to initially and continuously married mothers.

- Young women born to initially and continuously married mothers reported a much more Agreeable personality style than did young adults in all other groups.

- Young adults born to mothers who went on to divorce reported being more Open to Experience than did young adults in all other groups.

Narrative Summary and Implications of Young Adults' Psychological Outcomes

Young adults born to initially married mothers reported both higher self-esteem and a greater internal locus of control than did young adults born to initially unmarried mothers. However, the difference in self-esteem scores just reached statistical significance and the difference in locus of control scores, though considerably distinct, were not large. A check of the correlation between self-esteem and locus of control [r (285) = .51, p< .01] suggested that while there might be considerable overlap between the two constructs, the notion of discriminate validity was not compromised (i.e., both constructs are likely to be measuring unique features of self-concept). These findings provide further evidence as to why it was important to include locus of control, in addition to self-esteem, in these analyses.

Mothers' marital status was also only tenuously associated with feelings of emotional well-being and quality of life for young adults. The only group to be differentiated on this measure was young women born to continuously married mothers.

Differences in coping styles were a little more pronounced, though often not consistent with predictions that might follow from *a priori* stereotypes. The only finding of possible concern for the status of young adults born to unmarried mothers was that young men in this category were much less likely than other groups to Seek Guidance and Support. The meaning of this difference is open to speculation. It may be that these young men grew up in life circumstances where they learned that others could not be counted on in times of stress. (By comparison, females growing up in the same circumstances appear no less likely to access interpersonal resources to

cope with troubles.) What this means in terms of how these young men face life's challenges is also unclear. One possibility is that they will be relatively more independent in coping with life's vagaries after learning, through necessity, they could not access the type of support to which other children avail themselves.

This need not necessarily connote an entirely undesirable state of affairs, especially since there was no evidence that these young men adjusted by being more likely to adopt avoidance coping. On the other hand, there may be some negative implications insofar as this difference could signal a greater sense of social alienation. While a more autonomous and mature approach to coping might be one outcome of this finding, it also seems possible that it might translate into a more impulsive and less well-informed approach to challenges, especially given that these men are still quite young.

The sons of initially and continuously married mothers stood out in some interesting ways from all other groups with regard to coping. These young men were decidedly less likely to use Logical Analysis, Positive Reappraisal, and Problem Solving approach strategies. Whatever elements in their mothers' marital status contributed to these differences did not manifest in the female comparison group. Furthermore, these young men remained distinct from those males whose mothers were initially married but subsequently divorced.

Although we earlier argued that differences in coping styles did not necessarily portend superior or inferior ways of dealing with challenges, it is hard to discount the fact that these young men were distinctly less likely to use three of four approach strategies. And, although we also premised our investigation without assuming that children in lone parent families would be psychologically disadvantaged, we were perhaps less prepared to encounter what might be considered less optimal coping styles in the children of initially and continuously married mothers.

Although only one interpretation is readily available for this outcome, it is an intuitively appealing one. Children growing up in a family where mothers were initially and continuously married have experienced the prototypical benchmark structure. It is reasonable to expect that a significant proportion of these households also adhere to "traditional" family dynamics, where males

are shown relatively more deference than females and where the mother's role is to serve the family. In many of these traditional family situations, household responsibilities, such as food preparation, laundry, and so on, are delegated to female children while male children are excused. The paternal figure may also step in to provide monetary support and to lend assistance when their son's needs extend beyond the household. Insofar as this interpretative framework has merit, lower levels of coping in young men who grow up in this traditional family framework may simply reflect the fact that they have rarely been in situations where they have had to cope.

With regard to personality styles, the fact that young adults born to lone mothers were more likely to report a personality style associated with psychological distress provides some reason for concern. If we set aside the possibility that these children were, for reasons not immediately apparently, completely predisposed to this personality style, we are left with some evidence that their particular environment had some impact on the development of this personality style. Finally, it is interesting that young women born to continuously married mothers scored highest on the Agreeableness scale. As we will see in later discussion, an agreeable personality style appears adaptive in terms of the outcomes of the young adults. However, it was only the young women who stood out in this regard. If these young women scored higher in Agreeableness due to having experienced a "traditional" family environment, questions arise as to whether this finding reflects gender-role socialization and less than desirable levels of assertiveness in these young women.

Links Across the Years

In order to investigate potential change over time, the association between variables measured at previous times in this project and those assessed at the conclusion of the FMP was examined. The general approach used for this purpose was stepwise multiple linear regression analyses to determine which earlier measured variables (e.g., mothers' report of depressive symptoms 10 years ago) were significant predictors of current psychological outcomes.

Given the myriad of variables under consideration, a number of informed, but still somewhat arbitrary, choices were made about which measures would be

examined as outcome variables, which measures would be used as predictors, and which clusters of variables would be used in each analysis. To assess outcomes for mothers we chose a variety of demographic, family life, and earlier mother-related variables to predict self-esteem, locus of control, affective well being, and coping styles. We then used these variables to predict psychological outcomes and personality styles for the young adults, a strategy premised on the assumption that the stresses faced by mothers might also be experienced, directly or indirectly, by the young adults. This premise was broadly conceptualized and included the possibility that the mothers' experience of depression and years of schooling might impact on the psychological status of the children. Finally, we used a number of "child" variables measured when the young adults were 10 years of age to predict current psychological outcomes (in these analyses we also included whether or not the young adult completed high school as a predictor).

These analyses were conducted independent of marital status, in part, to retain sufficient numbers of participants for the regression analyses to meet basic statistical assumptions. Furthermore, the search for predictor variables relevant to all children is consistent with our more theoretical approach of understanding psychological outcomes as the result of the interplay of a wide variety of life variables (as opposed to being primarily fixed by mothers' marital status).

Nonetheless, it must be recognized that lone parent families find themselves, for a variety of reasons, over-represented in variable categories that are likely to expose family members to higher levels of stress. For example, mothers and children in lone parent families in this project were more likely to have received social assistance and more likely to have frequently shifted place of residence (Dechman, 2001b). Therefore, while the following analyses should be interpreted with a view to the relevance for all families, it is also necessary to proceed with the recognition that lone mothers and their children are more likely to experience circumstances that might be associated with less optimal psychological outcomes.

1. Links for Mothers

We chose the following five areas of life experience, either assessed 10 years ago or reported to have transpired over the period of time encompassed by this project, as predictors:

- Mothers' Psychological Status- The variable we used to measure mothers' psychological status 10 years ago was her self-reported level of depression on four items tapping into the subjective experience of depression.[5] Depression is, of course, a significant psychological experience in and of itself, and the research literature is full of evidence about how depression affects not only one's psychological state but also the ability to tackle life challenges at a more objective level. Beyond its more restricted conceptualization as a construct, depression so permeates all other aspects of life that a measure of depression can serve as a reasonable proxy for psychological status and well-being at a more global level. Indeed, had levels of depression been measured again at the conclusion of this project, we would expect scores to correlate highly with those obtained on the measure of affective/psychological well-being.

- Mothers' Socioeconomic Status- Given the established link between lone parenting and the experience of poverty, both in general and in this series of reports, inclusion of some measure of the financial status of families over the years was essential. Preliminary analyses suggested that the best proxy for this purpose was a dummy variable measuring whether mothers ever received social assistance over the time encompassed by the FMP (0 = never; 1 = at least once). Of course, such a measure not only taps into the stress associated with insufficient financial resources, but also is likely associated with the psychological stigma associated with being a recipient of social assistance.

- Mothers' Education- Higher levels of mothers' education have been repeatedly associated with more favorable outcomes for

lone mothers, not only in this series of reports but in the lone parenting literature more generally. It was perhaps the most significant predictor of outcomes at the halfway point of this project. Preliminary analyses suggested that the continuous interval level variable measuring mothers' total years of formal schooling was the best choice for this purpose.

- Disruption in Living Arrangements- One of the more significant predictors in Dechman's report on early school leaving was the number of times that mothers and their families shifted place of residence. Her report suggests that frequent moves were associated not only with general disruptions in one's sense of home and stability, but also served as a proxy for financial distress and the inability to find or maintain adequate housing in safe and secure neighbourhoods. The variable chosen for this purpose was the total number of moves that mothers reported their families had experienced over the 20 years encompassed by the FMP.

- Social Support- The risk and resiliency model outlined at the beginning of this report emphasizes the importance that the level of social support has for anyone who faces stressful circumstances, and this seems to be especially the case for lone parents. In her report on the Dynamics of Family Life, Dechman (2000a) describes at length the importance that mothers placed on receiving more specific support in the form of assistance with care-giving responsibilities. This support might come from grandparents, a husband, the biological father not living in the child's home, or support from members of the greater surrounding community. The types of assistance rendered included taking the child to the doctor, assisting with limit setting, taking the child on special excursions, and so on. Dechman's review delineates the actual experience of this type of child caring assistance, and reports on the fact that lone mothers were less likely than married mothers to receive this type of support. In these analyses, the total number of childcare areas in which mothers received assistance was used as a predictor variable.

What follows are the results from a series of stepwise regressions, where psychological outcomes for mothers were regressed on the five variables just outlined. Significant predictors are reported here on the basis of two decision steps: 1. first, the last variable entering the equation needed to produce a statistically significant change in the R^2 statistic (i.e., contributed significantly more predictive power to the outcome variable), and 2. the contribution of the predictor had to appear to have a meaningful impact on the predictive power of the equation. In most cases, these criteria were met simultaneously; however, in some instances variables entered the equation in a marginal way and without having any apparent reliable association to the outcome variable. In these cases, predictors are not reported because it was decided that their inclusion would distort the interpretation of the findings. For the purposes of brevity and ease of interpretation, the following results report only the zero-order correlations for each of the predictor variables. Raw and standardized beta weights, partial correlations, and R^2 statistics (for variables and equations) are available, upon request, from the first author.

Mothers' level of self-esteem, internal locus of control, and sense of psychological well-being were all found to be positively associated with the number of years they had remained in public school (rs = .17, .27, and .24 respectively). These same psychological outcomes were all negatively associated with mothers' levels of depression as self-reported 10 years ago (rs = -.25, -.23, and -.32 respectively).[6] Finally, mothers' current sense of well-being was modestly predicted by the number of areas in which she reported receiving support with child care.

These variables were generally poor predictors of coping styles. In terms of approach coping, the only significant finding was that the number of years that mothers had remained in public school predicted how likely they were to Seek Guidance and Support when facing problems (r = .22). Years of schooling proved to be a negative predictor of the expression of negative emotions (Emotional Discharge; r = -.21). Finally, higher levels of depression reported 10 years ago were associated with greater levels of avoidance coping on two of the four scales (Seeking Alternative Rewards, r = .30; Emotional Discharge, r = .25).

Point Summary of Mothers' Outcomes Across the Years

- Positive psychological states for mothers were firmly linked to how long they stayed in school. Although relatively modest in magnitude, total years of school proved to be a reliable predictor of self-esteem, internal locus of control, and sense of well-being.

- Self-ratings of depression made by mothers more than 10 years ago translated, in all cases, into more negative current psychological outcomes. Higher levels of depression were associated with lower self-esteem, a more external locus of control, and lower feelings of well-being.

- Years of schooling was positively associated with one approach coping mechanism and negatively associated with one of the avoidance strategies. Higher levels of depression were associated with avoidance coping.

Narrative Summary and Implications of Links Across The Years for Mothers

Mothers' education and level of depression as self-reported 10 years ago were reliable predictors of psychological outcomes today. Although the observed beta weights were not overwhelming in terms of sheer magnitude, the consistency of the observed pattern was quite striking. Being the recipient of social support in the form of child caring assistance also predicted mothers' current sense of well-being.

While the need for identifying and intervening with young people experiencing psychological distress is hardly a novel concept, the need to do so is unequivocally reinforced here. Similarly, the importance of education as the basis for positive outcomes is underscored once again. The simultaneous association to outcomes with both years of schooling and psychological well-being (as measured by depression scores) suggests the need for early and multifaceted intervention for children exhibiting signs of distress and markers of school-based problems.

Our longitudinal design did not include an assessment of the mothers' level of depression before leaving school. Therefore, we cannot conclude with any certainty the extent to which psychological distress precipitated dropping out of school among the original mothers as opposed to the extent that school failure provided the framework for young mothers reporting higher levels of depression. A reasonable interpretation, however, is that in many cases both scenarios were at play and ultimately interacted. Furthermore, both of these variables likely encompass a variety of other life experiences, perceptions, and emotional states in the lives of the mothers.

To the extent that psychological distress predated school dropout, it seems that teachers are in an optimal position to identify those markers that signal greater problems in the future. Indeed, one of the markers that is likely to underlie both distress and subsequent dropout are school-based problems, that may manifest in academic problems, behaviour, and interpersonal connections to school peers.

Optimally, teachers, guidance counselors, and school psychologists are in a prime position to monitor children's progress and, in turn, to directly implement interventions or to refer to outside agencies and community support groups. It is this early identification of a child who is struggling and the provision of support that will ultimately pay off in terms of circumventing later negative outcomes impacting on the individual, her family, and society as a whole. Furthermore, greater efforts to keep children in school are likely to not only result in more optimal future outcomes, but are also likely to help the student more immediately by keeping them from becoming marginalized and restricted in the range of options in the first place.

One other point needs to be emphasized here as we are discussing outcomes for young women. School-based programming is of critical importance to both girls and boys. Girls, in general, are much more likely to internalize their problems than are boys. Therefore, while distress in boys is likely to be manifested in a variety of acting-out behaviours that force the teacher to attend to them, girls are more likely to manifest their distress through depression, anxiety, and social withdrawal. The implication here is that they are not as likely to be overtly bothersome in the classroom, and because of this more likely to "slip through the cracks" vis-à-vis school outcomes. This is an important point to keep in mind for that segment of girls

that find themselves in a spiral of disengagement from the public school system, even in the face of recent reports that girls as a group are more likely to remain engaged and successful in the school system than are boys.

The links to more optimal coping patterns did not show as consistent a pattern to predictors as did psychological outcomes. Furthermore, an earlier section of this report reviewed how lone mothers were not noticeably different from their married counterparts in coping skills. Nonetheless, the extent to which dropping out of high school and relatively higher levels of depressed mood were linked to avoidance as opposed to approach coping strategies, provides evidence that these variables are important to consider for the functioning of all mothers.

2. Links for Young Adults

The same predictors as for the mothers were used to assess possible links to young adults' psychological outcomes, coping strategies, and personality styles. With regard to the latter, it is important to remember that the use of personality styles as outcome variables is quite arbitrary and employed for ease of analysis. Personality styles provide the individual with relatively stable ways of perceiving the world, and are heavily influenced by one's innate constitution and by experiences early in life. Although the personalities of the young adults were likely shaped by their life experiences throughout the time period encompassed by the FMP, the impact of environment likely diminished as the children grew older. The reciprocal proposition to this assertion must also be kept in mind; as the children grew older their personality styles were likely to have had an increasing impact on their environment. Perhaps the most important point to make here is that environment shapes personality, personality impacts upon the environment, and personality and environment interact.

The only significant predictor of young adults' self-esteem was whether their mother had ever received social assistance, and even here the link was weak. There was a modest association between having never lived in a household that received social assistance and higher self-esteem (r = .21). Taken together, mothers' totals years of education and the degree of help received with childcare provided a weak predictor of higher levels of an

internal locus of control. The degree of help mothers received with childcare was a significant predictor of young adult's sense of psychological well-being (r = .27), while mothers' depression was negatively associated with their current sense of well-being (r = -.23).

The total number of moves children experienced while growing up was positively associated with a passive coping style (Acceptance or Resignation, r = .20), negatively associated with using Logical Analysis as a coping mechanism (r = -.25), and negatively associated with active Problem Solving (r = -.21). Mothers' report of child-care support was positively associated with young adults' choice of a Positive Reappraisal coping strategy (r = .22), but inversely related to avoidance coping by Seeking Alternative Rewards (r = -.15). Finally, those young adults who coped by expressing negative emotions were linked to fewer years of maternal education (r = -.26).

Total years of mothers' education was positively associated with an Agreeable personality style (r = .22) but inversely related to a personality style associated with psychological distress as measured by the Neuroticism Scale (r = -.23). The numbers of moves experienced by young adults was associated with higher scores on the Neuroticism scale (r = .20), while higher levels of childcare support were linked to lower scores on this scale (r = -.19). Having grown up without ever having been on social assistance was weakly linked to greater levels of Openness to Experience (r = .20), while a Conscientious personality style was weakly negatively associated to lower levels of maternal depression (r = -.17).

The last set of regression analyses utilized a variety of intellectual, academic, and behavioural measures as assessed when the children were 10 years old to predict current psychological outcomes, coping styles, and personality orientations. The measures as assessed when the young adults were 10 years old included:

- Intellectual Functioning- No construct has been measured more or has caused as much controversy as the intelligence quotient (IQ). Although the use of IQ in psychological research has generated debate across a wide range of issues, most of the controversy involves, to greater and lesser degrees, questions about how much the outcomes on intelligence tests reflect genetic loading, how much reflect the impact

of environmental influences, and how much results from the interaction between nature and nurture.

We need not enter into this debate here other than to assert two basic propositions: 1) IQ reflects some combination of innate ability, ability acquired over time as a function of experience and innate ability, and the accumulation of knowledge, and, 2) research shows that IQ scores are consistently associated with many life outcomes, most especially with academic success. When the young adults were 10 years of age their intellectual functioning was measured with the Wechsler Intelligence Scale for Children- Third Edition (Wechsler, 1974). To predict current outcomes for young adults we used the Full Scale IQ, a summative composite score derived from combining all of the outcomes scores from this measure.

- Social Competence and Behaviour as Assessed By Mothers and Teachers- Both mothers and teachers rated the social competence and perceived behavioural problems of the young adults when they were 10 years old by completing the parent and teacher versions of the Child Behaviour Checklist (Achenbach & Edelbrock, 1983, 1986). Social Competence scores reflect a range of subjective judgments by teachers and parents regarding how well the child is performing in school, is getting along with others, experiencing happiness, and so on. Two of the predictor variables used in these subsequent analyses were total Teacher and Parent Social Competence scores.

  Mothers and teachers also rated the 10-year-olds across a number of observed behaviours reflecting either observed behaviour problems or signs of psychological distress (e.g., inferences about anxiety states). The behaviours were rated as being not present, sometimes present, or always present. Combinations of symptoms are weighted and placed on clinical construct scales determined via factor analytic techniques. The scales used as predictors in the present analyses are:

  1. Hyperactivity (Mothers)
  2. Aggression (Mothers)
  3. Nervous Overactive (Mothers)
  4. Social Withdrawal (Mothers)

5. Inattention (Teacher)
6. Aggression (Teacher)
7. Anxiety (Teacher)
8. Social Withdrawal (Teacher)

As might be deduced from the scale titles, the four areas rated by teachers from observations in the school environment roughly correspond to those areas rated by mothers in the home environment.

- Self-Esteem: The young adults completed the Piers-Harris Children's Self-Concept Scale (Piers, 1984) when they were 10 years of age. The total self-esteem score on this scale was the sole measure selected as a predictor. As we would expect this score to be highly inter-correlated with the adult measures of self-esteem, locus of control, and sense of well being, we restricted the use of this score to predict coping and personality styles.

- School Completion: The last predictor used in the following step-wise regression equations was whether or not the young adult had completed high school. This variable was dummy coded as 0 (completed high school) and 1 (dropped out before completing high school). This is an extremely important outcome variable reflecting the culmination of many life experiences as well as being an important predictor of ultimate life outcomes.

Findings for Children Across the Years

Teachers' ratings of Inattention (r = -.26) and mothers' ratings of Hyperactivity (r = -.26) at 10 years of age were inversely related to current levels of self-esteem reported by young adults. Thus, those behaviours most typically associated with childhood hyperactivity and attention deficit disorder, as rated in the home and school environments, predicted lower levels of adult self-esteem. Mothers' ratings of overall Social Competence predicted adult feelings of internalized control (r = .24). Interestingly, higher teacher anxiety ratings were positively associated with greater degrees of internalized control. Finally, dropping out of school was inversely related to an internal locus of control (r = -.18). The sole predictor of a psychological sense of well-being

was mothers' ratings of aggression, which were negatively correlated (r = -.23).

Greater levels of Social Withdrawal, as rated by teachers and mothers at 10 years of age, were quite firmly associated with lower levels of approach coping on three of the four scales at 20 years of age. Teachers' ratings were inversely related to Logical Analysis (r = -.37), Positive Reappraisal (r = -.37) and Seeking Guidance and Support (r = -.36). Mothers' ratings of Social Withdrawal were similarly, albeit more weakly, negatively related to Logical Analysis (r = -.20) and Positive Reappraisal (r = -.22). Teacher ratings of overall Social Competence provided a strong predictor of using a logical approach to problem solving (r = .44) and with coping by interpreting problems in a more positive light (Positive Reappraisal; r = .34). The sole variable predicting an active Problem Solving style was teacher ratings of aggression, which were negatively related (r = -.23).

A somewhat unexpected pattern emerged when examining the avoidance coping scales. While we might have expected to see social withdrawal positively correlated with avoidance coping, teacher ratings of withdrawal were negatively associated with Cognitive Avoidance (r = -.30), Acceptance or Resignation (r = -.27), and Seeking Alternative Rewards (r = -.38). Mothers' ratings of Withdrawal only emerged as a significant predictor coping via the negative expression of emotion (r = .25) which, as opposed to the teacher ratings, was a positive predictor. Perhaps an even more curious finding was that teacher Social Competence ratings were also a positive predictor of this coping style (r = .36). Finally, Mothers' ratings of aggression predicted higher levels of Cognitive Avoidance (r = .30) while lower levels of self-esteem at 10 years of age were weakly inversely related to a passive coping style (r = -.19).

Young adults who reported a more Agreeable personality style were less likely to have dropped out of school (r = -.30) and less likely to have been judged as aggressive by their teachers at 10 years of age (r = -.46). Those young adults reporting higher levels of Conscientiousness were linked to lower levels of mother-rated Inattentiveness (r = -.26) while higher levels of Extraversion were associated with higher ratings by mothers of overall Social Competence (r = .19). Psychological distress as measured by the Neuroticism scale was negatively associated with the young persons' self-

esteem at 10 years (r = -.35). Finally, the only place in any analysis where Full Scale IQ proved to be a significant predictor was seen in a weak link to the Openness to Experience personality style (r = .20).

Point Summary of Young Adults' Outcomes Over the Years

Central Points

1. Those variables that predicted mothers' self-esteem, locus of control, and well-being (i.e., mothers' years of education and level of depression), were not good predictors of the same psychological outcomes in their children.

2. How children were seen to be adapting in the home and school environments provided better predictors of psychological outcomes than were school completion or a measure of intellectual functioning. Furthermore, while school dropout predicted some outcomes, IQ scores, with one minor exception, did not.

3. Teachers' assessments of how children were behaving and functioning in the school environment were much stronger predictors of psychological outcomes than were mothers' ratings of behaviour and functioning in the home environment.

Specific Points

- Mothers' total numbers of years of education was positively associated with Locus of Control and with the Agreeableness and Openness to Experience personality styles. Mothers' education was inversely related to coping via Emotional Discharge (i.e., negatively "blowing off steam") and with a personality style associated with psychological distress.

- The amount of help mothers received with childcare was positively associated with psychological well-being and with a Positive Reappraisal coping style (i.e., making the best of a bad situation). This type of social support was inversely related to a personality style associated with distress.

- Total number of residential moves was positively linked to a passive coping style and to a personality style associated with distress. Number of moves was inversely related to the Logical Analysis of problems and to active Problem Solving.

- Lower levels of maternal depression were linked to somewhat higher levels of psychological well-being and to a more Conscientious personality style.

- Lower levels of current self-esteem were weakly associated with having lived in a household that received social assistance. Having been in a family that received social assistance was also weakly linked to a less open personality style.

- Behaviours suggestive of attentional problems and hyperactivity as reported by both mothers and teachers were linked to lower levels of current self-esteem. Mothers' ratings were also linked to young adults who reported a less Conscientious personality style.

- Mother and teacher ratings of Social Withdrawal were inversely related to approach coping strategies. Teacher ratings of social withdrawal were also, surprisingly, inversely related to three of the four measures of avoidance coping.

- Overall Social Competence, as rated by teachers, proved to be a relatively strong predictor of using Logical Analysis and Positive Reappraisal coping approaches. This variable also predicted an Emotional Discharge coping strategy.

- Mothers' ratings of overall Social Competence were weakly linked to internal locus of control and to higher levels of Extraversion.

- Higher levels of aggressive behaviour, as rated by mothers, were linked to lower levels of current well-being and a greater tendency to cope by Cognitive Avoidance.

- Teachers' aggression ratings were strongly linked to a less Agreeable personality style and, to a lesser extent, inversely related to active Problem Solving.

- High school completion was associated with an internal locus of control and with an Agreeable personality style. High school completion was inversely related to a personality style associated with psychological distress.

Narrative Summary and Implications of Links Across The Years for Young Adults

Mothers' education and level of depression did not prove to be consistent predictors of the psychological status of young adults. Exceptions included a link between mothers' education and locus of control and between maternal depression and lower levels of well-being. This finding, however, should not serve to lessen the importance of considering these variables when contemplating outcomes for young adults.

Maternal education and depression were significant predictors of a number of personality and coping styles. Higher levels of maternal education were negatively associated with coping by Emotional Discharge and with a distress-related personality style. Years of education was positively associated with the Agreeableness and Openness to Experience personality styles. Lower levels of maternal depression were associated with a more Conscientious personality style in young adults.

Maternal depression and years of education may have also had a more indirect connection to outcomes for the young adults, insofar as they related to other variables that predicted outcomes. For example, the number of residential moves experienced by children was linked to a personality scale assessing psychological distress, to a passive coping style, and to a lesser tendency to cope using Logical Analysis and active Problem Solving. The exact reasons why residential moves predicted less than optimal outcomes cannot be known with certainty, though one can reasonably speculate about the likely correlates of being a child who experiences frequent moves.

First, frequent moves are disruptive to a child's sense of stability and compromise the ability to "set down roots." Beyond the disruption, frequent moves are also likely to often reflect growing up in financially unstable circumstances and living in unstable, and perhaps even unsafe, neighbourhoods. There are also likely other correlates to such circumstances, such as being more likely to grow up in a family receiving social assistance. Indeed, having been a child in a family receiving social assistance was related to lower levels of self-esteem and a less open personality style. When a child is stigmatized by frequently being the "new kid" in his or her class it is hardly surprising that there would be psychological repercussions.

Certainly, providing lone parent families with the resources for suitable and stable housing is one part of the equation needed to remedy the negative effects of frequent moves, and the stigmatization and difficult circumstances that often accompany these moves. The other part of the equation may be more difficult to achieve. We clearly require a shift in societal attitudes that still makes a significant proportion of these children targets of social prejudice.

Greater levels of help with childcare also predicted a number of more optimal psychological outcomes for the young adults. The benefits of such support likely worked at least at two levels. First, assistance in childcare likely benefitted the mothers in a variety of ways. Results reviewed above suggested a link between this type of support and mothers' sense of well being. Although the link was a modest one, the implications for mother-child relationships are clear and other benefits to mothers, not included in these analyses, may also have accrued. At the very least, a mother receiving assistance with child care is likely to be less stressed and more able to give of herself to her child when her care-giving duties are not relentless.

At the second level, more assistance with childcare likely translated into more caring contact between the child and adult figures other than the mother. This is likely the case for all children, but especially important for the child in the lone parent family. In the case of lone mother led households, the contact may be with the father or father figure, or with extended family. The fact that this kind of extended family support may not be available in some instances makes it no less important. The broader community and government agencies may play an important role in filling this void. The important role of

church and youth groups (e.g., Girl Guides), sports teams, and agencies like Big Brothers and Big Sisters, as well as the role of comparable government funded agencies, should not be underestimated in this regard.

Despite the historic attention to intellectual functioning, IQ scores proved not to be an important predictor of psychological outcomes or coping styles. Rather, it was how well children appeared to be behaving and how socially competent they were perceived to be, as rated by mothers and teachers, that provided most of the predictive power. Although school dropout also accounted for unique predictive power, this single variable did not match the mother and teacher ratings in explaining most of the significant findings. Thus, there is not only conceptual, but also statistical, support for directing our concerns about school failure and social exclusion to children exhibiting signs of problems long before they reach high school.

Interestingly, problems perceived by mothers and teachers were not only related to lower levels of approach coping, but also, in several cases, to lower levels of avoidance coping. With regard to the avoidance strategies, this finding initially seemed counterintuitive. We had expected problems with behaviour and social competence would predict a greater tendency to utilize avoidance strategies, as they are typically considered the less than optimal ways to cope. However, a reconceptualisation in view of these findings leads to a plausible explanatory hypothesis. Whether a given strategy is more or less optimal, coping represents an adaptive response to stress. It may be that those children exhibiting problems at 10 years of age experienced life circumstances that rendered them less likely to use any kind of coping strategy whatsoever. Young adults who have developed a diminished capacity for coping as a result of life experiences present a variety of concerns for themselves and for society, even if they do not live with inordinately high levels of psychological distress.

One of the more striking findings is the extent to which teacher ratings proved to be better predictors of outcomes than were mother ratings. The reason for this greater accuracy is unclear. Perhaps, teachers are better able than mothers to step back from emotional involvement with a particular child and are able to provide a more objective assessment. An alternative hypothesis is that the classroom milieu is a setting where a broader variety of contextualised behaviours can be observed, at least insofar as classroom

behaviours are more closely linked to societal demands outside of the sheltered confines of the home.

In any case, these findings raise the possibility that teacher ratings predicted outcomes due to a self-fulfilling prophecy. This perspective is based upon the notion that teachers label certain children as problem students, and once labeled the children live up to the expectation. Indeed, this particular hypothesis was very prevalent in the 1960s and 1970s. While this hypothesis retains deserved support, more contemporary thinking holds that the initial labeling theory was overstated. In short, labeling theory taken to an extreme avoids the very real possibility that teachers' labels are often relatively accurate in the first instance.

Therefore, although it is probably not justifiable to discount the role of teacher perceptions as a force in shaping later outcomes, it is also not reasonable to conclude that teacher labels are reached arbitrarily. Furthermore, the finding that mothers' ratings of behaviour and competence were modestly related to young adults' ratings of Extraversion and Conscientiousness suggests it was not only teachers who picked up on predisposed or early developed personality traits.

However, even if the teachers were accurate this does not imply that their interactions with children are irrelevant to psychological outcomes or to school dropout. A more intermediate position is that after children are identified as having problems with behaviour, learning and social competence, they can quickly internalize the feedback they receive from teachers and classmates that indicates that the problems or deficits have been recognized. At this point, a self-fulfilling prophecy of sorts likely does take place insofar as problematic behaviours and negative feedback begin to interact. Once this interaction begins, the child becomes much more susceptible to falling into a spiral of academic failure, increasing behavioural problems, diminishing social competence, and psychological distress.

Rather than viewing teacher observations as evidence of labeling or that the child's future has already been determined, the teacher's role may prove to be an essential one in that the observations provide an opportunity for intervention. Rather than viewing the child as a problem for the school

system, the child may instead be viewed as being at risk for school failure and social exclusion and in need of additional resources and support.

The FMP provides more evidence that problems and distress in adults can be predicted by childhood markers of learning, behavioural, and social difficulties. Again, policy makers must consider whether resources directed towards early intervention and support might not only change outcomes for many children, but also provide significant savings for society as a whole. The findings reviewed here suggest that the classroom is an opportune environment to identify problems.

Discussion and Conclusions

The findings reviewed in this report do not support the hypothesis that being a mother or child in a lone parent family provides an inescapable route to psychological distress or to an inability to cope with life's challenges. Rather, the small differences observed on the basis of marital status suggest that while lone parenting is a variable that needs to be considered when predicting psychological outcomes, it is only one life variable amongst many. By itself, lone parenting is not a reliable predictor of large differences in psychological outcomes for either mother or child.

However, the pattern of differences that did emerge was sufficiently consistent that lone parenting cannot be reduced to an insignificant variable unworthy of the attention of policy makers and society more generally. Given the association of lone parenting to financial strain, frequent moves, lower levels of education, higher levels of maternal distress, and various forms of psychological stigmatization, it is important to consider how likely it is that this single determinant becomes clustered with other determinants of less optimal psychological outcomes and coping strategies.

Furthermore, in those instances where these more structural variables are juxtaposed with various early indicators of emerging problems in the home and school environments, the possibility of particularly negative outcomes for children begins to grow rapidly, at least for that segment of children who are unable to access resources and support. From this perspective, the results reviewed in this report lend support to the risk and resiliency model. Nonetheless, the pattern seen in the FMP tends to emphasize resiliency over risk. Even the inclusion of psychological outcomes from that subcategory of lone mothers and children placed at risk in multiple ways and who experienced truly negative outcomes was not sufficient to result in larger on average differences between the marital groupings.

These findings also provided support for the differential exposure framework, which proceeds from the proposition that there is nothing inherently problematic about the lone parent family configuration, but support is needed to ameliorate the negative stressors faced by these families. Perhaps the most striking evidence was the virtual absence of differences in coping

mechanisms between initially married and initially unmarried mothers. This finding suggests that the unmarried mothers in the FMP are, on average, as up to the task of facing life challenges as their married counterparts. The implication here is that many lone mothers finding themselves trapped in a rut characterized by financial distress and a lack of options, would profitably exploit opportunities to enhance their circumstances if only given the chance.

The present study raises an important challenge for the way in which social policy is formed based upon conventional beliefs about the importance of self-esteem to the detriment of considering the importance of locus of control and self-efficacy. Although findings in this report demonstrate that self-esteem and locus of control are related, there was also considerable evidence that both constructs captured uniquely different aspects of how lone mothers and children view themselves. While feeling good about self may be an important marker of well-being, it is not necessarily enough to produce better educational and vocational outcomes for mothers and their children. Rather, members of lone parent families need to gain a sense of control over what occurs in their lives.

Finally, conventional wisdom about how small difficulties, left unattended, grow into larger difficulties finds support in the findings reviewed in this report. The current series of reports encapsulating the final outcomes in the FMP provide convincing evidence that those lone mothers ultimately experiencing the most negative outcomes provided evidence of distress long before they became mothers. This specific report indicates that the best predictors of outcomes for young adults were teacher observations of social competence and behaviour 10 years earlier. These findings surely present a convincing case for earlier, more meaningful, and more comprehensive interventions if we are to produce more optimal outcomes for children and for society as a whole.

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Notes

1. Dechman (2000) discusses these issues from a slightly different conceptual framework in the initial report from this FMP series. She attributes the family "benchmark" to a structural functionalist model, the risk and resiliency framework meshes well her discussion of public policy based in a "problem resolution" or "social problem" framework, and the family diversity perspective mirrors her discussion of the historic change in emphasis from family structure to family process.

2. The relative permanence of personality at this age should not be equated with value systems that probably remain quite malleable at this point in development.

3. The youth in this study were divided on the basis of sex, the biological determinant of maleness or femaleness. However, we proceed on the assumption that any differences between the two groups are more likely the result of experiencing life as a male or female than to any biological mechanisms. Thus, any differences we report are referred to as Gender differences.

4. Details relating to this interaction are available upon request.

5. The specific items, factor structure, and reliability (internal consistency) coefficients from this scale are available upon request.

6. The reader is reminded, once again, that although zero order correlations are reported here, all of these variables were significant predictors when placed in stepwise regression models. Thus, they should be interpreted as contributing unique variability to the psychological outcomes under consideration. Other significant zero order correlations not emerging as significant predictors are not reported here because they failed to capture sufficient unique variability.